The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1-69. (Previously Cancelled)

1 ~~70.~~ (Previously Amended) An isolated receptor which binds nucleotides, wherein said receptor comprises an amino acid sequence as shown in SEQ ID NO: 2.

71-73. (Previously Cancelled)

sb examiner's amdt 74. (Previously Amended) An isolated nucleic acid molecule encoding the receptor according to claim 70 or a complement thereof.

3 ~~75.~~ (Previously Amended) The isolated nucleic acid molecule of Claim 2 ~~74~~, wherein said nucleic acid molecule is DNA.

4 ~~76.~~ (Original) The nucleic acid molecule of Claim 2 ~~74~~, wherein said nucleic acid molecule has the sequence shown in SEQ ID NO: 1.

5 ~~77.~~ (Original) A recombinant vector comprising the nucleic acid molecule of Claim 2 ~~74~~.

6 ~~78.~~ (Previously Amended) [A] An isolated host cell comprising the vector of Claim 5 ~~77~~.

7 ~~79.~~ (Original) The host cell of Claim 78, wherein said cell is selected from the group consisting of COS-7, LM(tk-), NIH-3T3 and 1321N1.

8 ~~80.~~ (Previously Amended) An antisense probe having a sequence fully complementary to an isolated nucleic acid molecule as shown in SEQ ID NO: 1.

81. (Withdrawn from consideration) A ligand capable of binding to the receptor of claim 70, with the proviso that said ligand is not a purine nucleotide, pyrimidine nucleotide, carbachol or pertussis toxin.

82. (Withdrawn from consideration) The ligand of Claim 81, wherein said ligand is an antibody.

83. (Withdrawn from consideration) The ligand of claim 82, wherein said antibody is monoclonal.

9 ~~84.~~ (Previously Amended) A method for determining whether a ligand can activate a receptor which binds nucleotides, wherein said receptor has an amino acid sequence as shown in SEQ ID NO: 2, comprising the steps of:

preparing an extract from cells expressing the receptor;

isolating a membrane fraction from said extract;

contacting said membrane fraction with said ligand; and

assaying said membrane fraction for increased receptor activity, wherein increased activity indicates that said ligand is an activator of said receptor.

85. (Withdrawn from consideration) A ligand detected by the method of Claim 84.

86. (Withdrawn from consideration) A method for detecting the expression of a receptor having a preference for pyrimidine nucleotides over purine nucleotides, wherein said receptor has an amino acid sequence having more than 60% homology with the amino acid sequence shown in SEQ ID NO:2, in a cell comprising the steps of:

obtaining total RNA or mRNA from said cell;

contacting said RNA or mRNA with a nucleic acid probe comprising at least 15 nucleotides capable of specifically hybridizing to a unique sequence included within the nucleic acid molecule of claim 73; and

detecting the presence of said RNA or mRNA.

87. (Withdrawn from consideration) An anti-ligand capable of competitively inhibiting the binding of the ligand of claim 81.

88. (Withdrawn from consideration) A pharmaceutical composition comprising an effective amount of the anti-ligand of claim 87 and a pharmaceutically acceptable carrier.

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~~89.~~ (Previously Amended) A method for determining whether a ligand can specifically bind to a receptor having a preference for pyrimidine nucleotides over purine nucleotides, wherein said receptor has an amino acid sequence as shown in SEQ ID NO: 2, comprising the steps of:

preparing a cell which expresses the receptor;

contacting said cell with said ligand; and

[assaying the activity of said receptor, wherein increased activity indicates that said ligand is an activator of said receptor] detecting the presence of any such ligand bound specifically to said receptor, thereby determining if the ligand can specifically bind said receptor.

90. (Withdrawn from consideration) A ligand detected by the method of claim 89.

91-92. Previously Cancelled.

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~~93.~~ (Original) An isolated nucleic acid molecule comprising the nucleic acid sequence shown in SEQ ID NO: 1.

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~~94.~~ (Previously added) A host cell comprising the vector of Claim ~~77~~, wherein said host cell is comprised by a transgenic non-human mammal.

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~~95.~~ (New) A method of preparing the receptor of claim 70, wherein said method comprises:

a) constructing a vector adapted for expression in a cell, wherein said vector comprises the regulatory elements necessary for the expression of nucleic acid molecules in the cell, wherein said regulatory elements are operatively linked to a nucleic acid molecule encoding said receptor so as to permit expression thereof;

b) inserting the vector of step (a) in a suitable host cell;

c) incubating the cell of step (b) under conditions allowing the expression of the receptor according to the invention;

d) recovering the expressed receptor; and

e) purifying the recovered receptor, thereby preparing the receptor of claim 70.

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~~96~~. (New) The method according to Claim ~~95~~, wherein the cell is selected from the group consisting of a bacterial cell, a yeast cell, an insect cell and a mammalian cell.